AN OVERVIEW OF THE U.S. PUBLIC PORT INDUSTRY

ECONOMIC IMPACT OF U.S. PORTS

The ports of the United States play an important role in meeting the demands for water transportation service, which is driven by the producers and consumers of waterborne cargoboth in foreign and domestic commerce. This demand for waterborne cargo initiates a chain of economic activity which contributes to the overall national economy. U.S. ports are a vital link in this economic chain.

This section of the report analyzes the economic impact of the port industry, public port capital expenditures, and port users. The measurement of the direct, indirect, and induced effects are shown in terms of employment, personal income, business sales, Gross Domestic Product (GDP), and taxes.¹

Port Industry Impacts

The port industry is defined as any economic activity that is directly needed for the movement of waterborne cargo. The main categories include vessel services for pilotage and dockage; trade services for freight forwarders, customs brokers, and insurance; cargo handling and storage activities; and inland transportation.²

The port industry's impact on the national economy is summarized in Table 1. The economic impacts are based on the total domestic and foreign waterborne tonnage handled in 1996 by the Nation's deep and shallow draft ports.³ The benefits shown include direct, indirect, and induced impacts. The latter two impacts result from the multiplier effect of the direct spending associated with port activity. The port industry is responsible for generating over 1.4 million jobs and directly and indirectly responsible for \$52.7 billion in personal income and \$140.1 billion of sales revenues.

The Maritime Administration's (MARAD) Input-Output model methodology was applied to calculate the direct, indirect, and induced effects. MARAD's model is based on the Department of Commerce's Bureau of Economic Analysis national input-output table. Some of this report's impact numbers are lower than the previous report. This resulted from a change in the manner in which cargo tonnage was distributed in the model. Specifically, tonnage was shifted from the neo-bulk category to dry or liquid bulk. Bulk cargo generates lower economic impacts than neo-bulk.

For purposes of the input-output model, inland transportation is defined as transport to the dock from the final shipper or from the dock to the initial consignee. Subsequent moves are not included.

For economic impact purposes, the domestic tonnage is counted twice since there is economic benefit at each end of a domestic cargo movement. The economic benefits of the cruise industry were not included.

Table 1
Economic Impact of Port Industry for 1996

| | Total Direct Impacts Indirect & | | | | | |
|-----------------------|---------------------------------|----------------|-------------------------------|--|--|--|
| | Total Impacts | Direct Impacts | Indirect & Induced Impacts | | | |
| Employment | 1.4 mil | 0.4 mil | 1.0 mil | | | |
| Income | \$52.7 bil | \$16,8 bil | \$35.9 bil | | | |
| Sales | \$140.1 bil | \$44.1 bil | \$96.0 bil | | | |
| GDP | \$74.8 bil | \$22.8 bil | \$52.0 bil | | | |
| Taxes - Federal | \$14.7 bil | - | - | | | |
| Taxes - State & Local | \$5.5 bil | - | | | | |

Source: Maritime Administration

Capital Expenditure Impacts

Table 2 highlights the national economic impact derived from the public port industry's capital expenditure program for the construction and modernization of the terminal facilities and channel dredging. For 1996, the public port industry's capital expenditures amounted to \$1.3 billion. The impacts reflect the short term results produced by the initial capital expenditure but not the long-term benefits. For example, it includes the benefits derived from the construction of a new terminal facility, but not the economic gains that result from future terminal operations. These capital expenditures resulted in 45,600 jobs, \$1.7 billion in personal income, and \$3.9 billion in sales revenues.

Table 2
Economic Impact of Public Port Capital Expenditures for 1996

| | Economic Impact | | | | | |
|-----------------------|------------------|----------------|-------------------------------|--|--|--|
| | Total Impacts | Direct Impacts | Indirect & Induced Impacts | | | |
| Employment | 45,600 | 15,400 | 30,200 | | | |
| Income | \$1.7 bil | \$688.7 mil | \$993.4 mil | | | |
| Sales | \$3.9 bil | \$1.2 bil | \$2.7 bil | | | |
| GDP | \$2.3 bil | \$876.7 mil | \$1.4 bil | | | |
| Taxes - Federal | \$455.9 mil | - | · - | | | |
| Taxes - State & Local | \$172.9 mil | _ | - | | | |

Source: Maritime Administration

Port User Impacts

Port users are businesses that make significant use of the waterborne commerce for shipping or receiving goods. The economic impacts shown in Table 3 illustrate the importance of waterborne trade to the national economy. As an example, about 95 percent by weight of all U.S. foreign overseas trade moves through U.S. ports. The total number of jobs generated by port users is 11.7 million with \$439.8 billion in personal income and business sales approaching \$1.4 trillion.

Table 3
Economic Impact of Port Users for 1996

| | Economic Impact Total Indirect & | | | | | |
|-----------------------|------------------------------------|-------------|----------------------------|--|--|--|
| | Total Direct Impac | | Indirect & Induced Impacts | | | |
| Employment | 11.7 mil | 2.1 mil | 9.6 mil | | | |
| Income | \$439.8 bil | \$105.7 bil | \$334.1 bil | | | |
| Sales | \$1,376.5 bil | \$442.8 bil | \$933.7 bil | | | |
| GDP | \$665.8 bil | \$169.9 bil | \$495.9 bil | | | |
| Taxes - Federal | \$131.2 bil | - | - | | | |
| Taxes - State & Local | \$47.4 bil | - | | | | |

Source: Maritime Administration

Total Economic Impacts

Table 4 presents a summary of the overall national economic impact of the port industry, capital expenditures, and port users. This includes 13.1 million jobs, income of \$494.2 billion, and sales of \$1.5 trillion. This impact also contributes \$742.9 billion to the Nation's GDP and \$146.4 billion in Federal taxes and \$53.1 billion in state and local taxes.

Table 4
Summary of the Economic Impacts for 1996

| | Total Impacts | Port Industry Impacts | Capital Expenditure Impacts | Port User Impacts | |
|-----------------------|------------------|--------------------------|-----------------------------------|----------------------|--|
| Employment | 13.1 mil | 1.4 mil | 45,600 | 11.7 mil | |
| Income | \$494.2 bil | \$52.7 bil | \$1.7 bil | \$439.8 bil | |
| Sales | \$1,520.5 bil | \$140.1 bil | \$3.9 bil | \$1,376.5 bil | |
| GDP | \$742.9 bil | \$74.8 bil | \$2.3 bil | \$665.8 bil | |
| Taxes - Federal | \$146.4 bil | \$14.7 bil | \$455.9 mil | \$131.2 bil | |
| Taxes - State & Local | \$53.1 bil | \$5.5 bil | \$172.9 mil | \$47.4 bil | |

Source: Maritime Administration

Table 5 shows how the total impacts in Table 4 are distributed within the economy. Specifically, it depicts which industrial sectors of the economy benefit from the movement of waterborne cargo in terms of employment, income, sales, and contribution to Gross Domestic Product. The manufacturing sector remains as the primary beneficiary of port activity across all four impact measures. The services and retail trade sectors are also beneficiaries in terms of employment with services, transportation, and finance among the other principal sectors for income, and the finance and transportation sectors in sales and contributors to GDP.

Table 5
U.S. Port Impacts at the Industrial Sector Level for 1996

| Industrial Sector | Employment | Income | Sales | GDP | |
|------------------------------------|------------|-------------|---------------|-------------|--|
| Agriculture | 0.5% | 2.2% | 3.1% | 2.7% | |
| Agric. Services, Forestry, Fishing | 1.0% | 0.7% | 0.5% | 0.6% | |
| Mining | 1.5% | 2.9% | 4.7% | 5.9% | |
| Construction | 2.3% | 2.5% | 1.0% | 1.7% | |
| Manufacturing | 25.7% | 32.9% | 41.9% | 29.9% | |
| Transportation/Public Utilities | 8.6% | 11.9% | 10.9% | 12.9% | |
| Wholesale | 5.6% | 6.8% | 9.1% | 11.4% | |
| Retail Trade | 16.6% | 9.7% | 6.4% | 7.8% | |
| Finance, Insurance, Real Estate | 9.7% | 11.2% | 12.0% | 13.4% | |
| Services | 24.8% | 17.3% | 9.6% | 12.6% | |
| Government | 3.7% | 1.9% | 0.9% | 1.2% | |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | |
| Total Impacts | 13.1 mil | \$494.2 bil | \$1,520.5 bil | \$742.9 bil | |

Source: Maritime Administration

Congressional Ports Report 1997

Table 6 U.S. Waterborne Commerce for 1955 - 1996 (Millions of Metric Tons)

| | | Foreign | | | | Domestic | | | | | | |
|------|--------|---------|---------|---------|---------|----------|---------|-----------|----------|----------|-----------|----------------|
| Year | Total | Total | Percent | Imports | Exports | Total | Percent | Coastwise | Lakewise | Internal | Intraport | Intraterritory |
| 1996 | 2072.0 | 1073.5 | 51.8% | 664.6 | 408.9 | 998.5 | 48.2% | 242.6 | 104.2 | 564.3 | 80.7 | 6.7 |
| 1995 | 2032.4 | 1040.8 | 51.2% | 610.2 | 430.6 | 991.6 | 48.8% | 241.9 | 105.3 | 562.7 | 75.4 | 6.1 |
| 1994 | 2008.7 | 1011.9 | 50.4% | 652.6 | 359.4 | 996.8 | 49.6% | 251.2 | 104.1 | 560.9 | 75.2 | 5.4 |
| 1993 | 1930.3 | 961.4 | 49.8% | 588.5 | 373.0 | 968.9 | 50.2% | 246.4 | 99.7 | 550.7 | 67.5 | 4.5 |
| 1992 | 1933.8 | 941.0 | 48.7% | 532.1 | 408.9 | 992.8 | 51.3% | 258.6 | 97.4 | 563.2 | 69.7 | 3.9 |
| 1991 | 1897.5 | 919.3 | 48.4% | 503.7 | 415.6 | 978.2 | 51.6% | 266.6 | 93.8 | 545.1 | 68.6 | 4.1 |
| 1990 | 1962.6 | 944.7 | 48.1% | 544.2 | 400.5 | 1017.9 | 51.9% | 270.8 | 100.0 | 564.7 | 78.4 | 4.0 |
| 1989 | 1941.4 | 941.4 | 48.5% | 534.7 | 406.7 | 1000.0 | 51.5% | 273.9 | 99.0 | 549.6 | 72.7 | 4.8 |
| 1988 | 1893.8 | 885.4 | 46.8% | 498.8 | 386.6 | 1008.4 | 53.2% | 294.9 | 99.5 | 533.4 | 75.9 | 4.7 |
| 1987 | 1784.5 | 808.1 | 45.3% | 460.5 | 347.6 | 976.4 | 54.7% | 293.4 | 87.5 | 516.8 | 74.3 | 4.4 |
| 1986 | 1700.1 | 759.4 | 44.7% | 440.9 | 318.5 | 940.7 | 55.3% | 279.4 | 79.2 | 508.4 | 70.2 | 3.5 |
| 1985 | 1622.1 | 702.3 | 43.3% | 374.3 | 328.0 | 919.8 | 56.7% | 281.0 | 83.4 | 484.9 | 67.4 | 3.1 |
| 1984 | 1665.2 | 728.6 | 43.8% | 387.4 | 341.2 | 936.6 | 56.2% | 279.0 | 88.9 | 492.0 | 73.6 | 3.1 |
| 1983 | 1548.9 | 681.3 | 44.0% | 351.8 | 329.5 | 867.6 | 56.0% | 280.8 | 75.7 | 441.8 | 66.3 | 3.0 |
| 1982 | 1611.5 | 743.5 | 46.1% | 377.9 | 365.6 | 868.0 | 53.9% | 282.1 | 65.4 | 449.4 | 68.6 | 2.5 |
| 1981 | 1761.0 | 804.6 | 45.7% | 432.8 | 371.8 | 956.4 | 54.3% | 292.0 | 104.7 | 472.2 | 84.6 | 2.9 |
| 1980 | 1813.0 | 835.7 | 46.1% | 469.4 | 366.3 | 977.3 | 53.9% | 299.0 | 104.4 | 485.2 | 85.4 | 3.3 |
| 1975 | 1537.4 | 679.1 | 44.2% | 432.3 | 246.8 | 858.3 | 55.8% | 210.4 | 117.3 | 457.1 | 71.0 | 2.5 |
| 1970 | 1389.2 | 526.9 | 37.9% | 307.8 | 219.1 | 862.3 | 62.1% | 216.3 | 142.5 | 428.2 | 73.9 | 1.4 |
| 1965 | 1154.6 | 402.5 | 34.9% | 244.7 | 157.8 | 752.1 | 65.1% | 182.8 | 139.4 | 335.2 | 93.3 | 1.4 |
| 1960 | 997.5 | 307.7 | 30.8% | 191.7 | 116.0 | 689.8 | 69.2% | 189.7 | 140.7 | 264.0 | 94.5 | 0.9 |
| 1955 | 921.6 | 245.9 | 26.7% | 138.7 | 107.2 | 675.7 | 73.3% | 177.5 | 167.6 | 226.5 | 102.4 | 1.7 |

Source: U.S. Army Corps of Engineers

^{1 -} Foreign trade figures include tonnage from the Louisiana Offshore Oil Port (LOOP) and additional adjustments made by the Corps of Engineers to the Census foreign trade data

^{2 -} Percent refers to percentage of total waterborne trade